TRAFFIC REGISTERS—PART 17
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section is Part 17 of a series of sections that describe methods of testing traffic registers.

1.02 This section is reissued for the following reasons.

(a) To revise title

(b) To add Tests D and E.

Since this reissue is a general revision, arrows ordinarily used to indicate changes have been omitted.

This reissue affects Equipment Test Lists.

1.03 The tests covered are:

1.04 All tests require actions and verifications at the master test frame (MTF) and traffic register cabinet.

1.05 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Part 3 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.06 The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

1.07 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.

1.08 Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

2. APPARATUS

All Tests

2.01 Master test control circuit, SD-25800-01.

2.02 The following apparatus may also be required.

(a) Apparatus covered in 2.03 and 2.04 is required when a portable lamp is used to determine register operation.

(b) Two head telephone sets are required when a portable lamp is not used.

(c) A 32A test set is required when the MTF is controlled from a remote point.

(d) Two 26 cords are required in offices where it is necessary to patch the traffic register to the circuit under test and to patch the traffic register to a battery supply.

2.03 Two W2W cords, 10 feet long, each equipped with a 310 plug and two 360-type tools (2W17C cords), two KS-6278 connecting clips, and two 108 cord tips (required when a portable test lamp is used).

2.04 38B lamp socket, equipped with a 2Y lamp (required when a portable test lamp is used).

Tests B, C

2.05 322A (make-busy) plugs as required.

Test D

2.06 Two 1014A hand sets or equivalent, equipped with 2W38A cord assembly, consisting of W2CK cord, 310 plug, and 471A jack.

Test E

2.07 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-020-801.

Tests D, E

2.08 Testing cord, 893 cords, 6 feet long, equipped with two 360A tools (1W13B cord) and two 419A (test connector) tools.

3. PREPARATION

STEP	ACTION	VERIFICATION
All Tests		
1a	If traffic registers are arranged for patching— At traffic register cabinet— Insert cord tip of 26 patching cord into P_ jack for circuit associated with register to be tested.	
2a	Insert cord tip on other end of 26 patching cord into black jack associated with register to be tested (black jack is located on mounting plate with register).	
3a	Insert cord tip of 26 cord into red jack on mounting plate with register to be tested.	
4a	Insert cord tip on other end of 26 cord into any S_ jack located at bottom of jack field.	
5b	If traffic registers are arranged for patching and if battery supply for register to be tested is controlled by C toggle switch—	

STEP	ACTION	VERIFICATION
	At traffic register cabinet— If C toggle switch in OFF position— Set toggle switch to ON.	
6c	If traffic registers are ***not*** arranged for patching— Determine from local office records functional designation of peg count BAT key associated with register to be tested.	
7c	At traffic register cabinet— Operate BAT key associated with register to be tested.	
8d	If tests are to be performed without portable lamp— Establish talking circuit between frames where test is to be performed and where observations are to be made.	
9e	If tests are to be performed with portable lamp— At frame where action is to be taken— Insert plug of 2W17C cord, equipped with two KS-6278 connecting clips, into SP jack of miscellaneous circuit.	
10e	Determine from circuit drawing of circuit associated with register to be tested, location of terminal on terminal strip at which common lead to traffic register circuit is connected.	
11e	Connect one lead of 2W17C cord to terminal on terminal strip determined in Step 10e.	
12e	Connect other lead of 2W17C cord to battery.	
13e	Connect leads of 38B lamp socket to leads of another 2W17C cord equipped with two KS-6278 connecting clips.	
14e	Insert plug of this 2W17C cord into any appearance of selected SP jack of miscellaneous circuit close to position where test is to be performed.	
15e	Place lamp so that it can be easily observed.	
16f	If tests are performed with portable lamp and if circuit associated with register to be tested removes ground from common lead to	Lamp extinguished.

STEP	ACTION	VERIFICATION
	traffic register circuit to operate register— Observe lamp when register operates.	
17g	If tests are performed with portable lamp and if circuit associated with register to be tested applies ground to common lead to traffic register circuit to operate register— Observe lamp when register operates.	Lamp lighted.
18e	If tests are to be performed with portable lamp— To observe scoring of register when using test lamp, proceed as follows: (a) For first observation of scoring of register, observe that test lamp indicates proper condition on common lead and that register scores as required. (b) For subsequent observations of scoring of same register, observe lamp indications only. *Note:* When the register to be tested scores at timed intervals, the test lamp will not flash with the scoring of the register.	
19	At MTF— Restore all keys and switches.	
20	Momentarily operate RL key.	All lamps extinguished.

4. METHOD

STEP	ACTION	VERIFICATION
A.	**Peg Count Register of Total AIS Seizures (PC Lead)**	
21	Select marker.	
22	Select INC class of call with LT translation indication.	
23	Select incoming class of test.	
24	Select incoming trunk class.	
25	Select trunk link frame.	
26	Select A through G digits as required to direct call to intercept.	
27	Momentarily operate ST key.	At traffic register cabinet— Register scored once.

STEP	ACTION	VERIFICATION
28	At MTF— Momentarily operate RL key.	All lamps extinguished.
29	Restore all keys and switches not required in next test.	

B. Peg Count Register for all AIS Senders Busy (ASB Lead)

21	Select marker.	
22	Select INC class of call with LT translation indication.	
23	Select incoming class of test.	
24	Select incoming trunk class.	
25	Select trunk link frame.	
26	Select A through G digits as required to direct call to intercept.	
27	Insert make-busy plugs into MB jacks of all senders except one in AIS sender group.	
28	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
29	At MTF— Momentarily operate RL key.	All lamps extinguished.
30	Remove make-busy plugs from MB jacks of senders make busy.	
31	Restore all keys and switches not required in next test.	

C. Overflow Register for all AIS Line Circuits Busy (ALB Lead)

21	Select marker.	
22	Select INC class of call with LT translation indication.	
23	Select incoming class of test.	
24	Select incoming trunk class.	
25	Select trunk link frame.	

STEP	ACTION	VERIFICATION
26	Select A through G digits as required to direct call to intercept.	
27	Insert make-busy plugs into MB jacks of all AIS line circuits except one.	
28	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
29	At MTF— Momentarily operate RL key.	All lamps extinguished.
30	Remove make-busy plugs from MB jacks of line circuits made busy.	
31	Restore all keys and switches.	

D. Peg Count of Call Waiting Circuit Usage (PC Lead)

21	Select LT class of test.	
22	Select A through D digits assigned to any line arranged for call waiting service.	
23	Set FT_, FU_ switches to select line link frame associated with selected line location.	
24	Select incoming class of call with translator indication for access to selected number.	
25	Select office designation when selected line is in theoretical or extra theoretical number series.	
26	Select completing marker.	
27	Set CWC_ switch to select a particular call waiting circuit.	
28	Operate CWTV key.	CWT lamp lighted.
29	Operate LBL, TLK keys.	
30	Plug hand telephone set into TM1 jack.	
31	Plug hand telephone set into TM2 jack.	
32	At call waiting link circuit— Connect 1F to 1B on CWT3 relay.	

STEP	ACTION	VERIFICATION
33	At MTF— Operate T, ANS keys.	
34	Momentarily operate ST key.	S, CWK, CWSV lamps lighted. Call waiting alerting tone heard in handset at TM2 jack and not heard in handset at TM1 jack.
35	Momentarily restore ANS key.	CWSV lamp remains lighted. S lamp extinguished. High tone heard in MTF test receiver. At traffic register cabinet— Peg count register scores once.
36	At MTF— Restore CWTV, TLK, ANS, T keys.	CWT, CWSV lamps extinguished. S lamp lighted. High tone silenced in MTF test receiver.
37	Momentarily operate RL key.	All lamps extinguished.
38	Restore all keys and switches.	
39	Remove plugs of handsets from TM1, TM2 jacks.	
40	At call waiting link circuit— Remove connection on 1F, 1B, of CWT3 relay.	

E. Overflow Count of All Call-Waiting Circuits in a Group Busy (ACB Lead)

21	Select LT class of test.	
22	Select A through D digits assigned to any line arranged for call waiting service.	
23	Select line link frame associated with selected line location.	
24	Select incoming class of call with translator indication.	
25	Select office designation when selected line is in theoretical or extra theoretical number series.	
26	Select completing marker.	
27	Set CWC switch to select a particular call waiting circuit.	

STEP	ACTION	VERIFICATION
28	At call waiting link circuit— Block operated CB_ relay associated with call waiting circuit selected in Step 27.	
29	Connect 2F to 2B on CWT3 relay.	
30	At MTF— Operate CWTV key.	CWT lamp lighted.
31	Operate LBL, TLK keys.	
32	Operate T, ANS keys.	
33	Momentarily operate ST key.	At traffic register cabinet— Overflow register scores once.
34	At MTF— Momentarily operate RL key.	All lamps extinguished.
35	At call waiting link circuit— Remove connection from 2F to 2B on CWT3 relay.	
36	Remove blocking tool from CB_ relay.	
37	At MTF— Restore all keys and switches.	